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United States Patent [19]

Cho

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[54] SELF-PROPELLED WHEEL FOR WHEELED VEHICLES

5,600,191 2/1997 Yang ..... 310/67 R

5,625,241 4/1997 Ewing ..... 310/67 R

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180/65.6, 65.7; 310/67 R, 67 A, 74, 75 R,  
68 R

[56] References Cited

## U.S. PATENT DOCUMENTS

3,566,165 2/1971 Lohr ..... 180/65.5

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## [57] ABSTRACT

A self-propelled wheel for wheeled vehicles includes an axle, a stator drum fixed to the axle, and a wheel hub and rim rotatably mounted on the axle. Permanent magnets are fixed on the wheel and oppose an outer lateral face of the stator drum and an outer peripheral edge of the stator drum. Excitation of the stator drum causes the permanent magnets, and thereby the wheel, to rotate on the axle.

4 Claims, 3 Drawing Sheets

